
From: John Schmuck [John_Schmuck@Cameco.com]
Sent: Thursday, August 30, 2012 12:53 PM
To: Burrows, Ronald
Cc: Josh Leftwich; Larry Teahon
Subject: Supplemental Pond Inspection Frequency Information
Attachments: Pond Inspection Frequency 8-30.doc

Ron - Attached please find supplemental information regarding pond inspection frequency.

Thanks. .john

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CAMECO RESOURCES
U.S. Corporate Office

Inter-Office Memo

To: Ronald Burrows

From: John P. Schmuck

Date: August 30, 2012

Subject: Additional Information on Draft License Condition 11.10, Crow Butte License Renewal

In a memo dated August 16, 2012 Cameco provided additional information related to draft license condition 11.10 regarding pond inspection frequency.

The original design basis does reflect reality- typically it takes only a day or two for the leak to appear as a rise in the underdrain liquid level.

Consistent with the application and license, if the liquid level rises more than 6 inches, conductivity readings are required, and if the conductivity is greater than one-half the conductivity of the pond contents, an NRC report is triggered. The conductivity trigger is critical; without it other clean water that finds its way into the underdrain would trigger many reports that do not represent a leak of pond contents through the primary liner. The most likely source of clean water is through the air vents built into the interstitial space between the liners.

Cameco goes to great effort to wash the interstitial space after a leak of pond contents through the primary liner so that the rise in liquid level combined with the conductivity reading may again be used to detect actual pond leaks. The washing can take considerable time. It is the washing of the underdrain until conductivity readings are low enough to discriminate clean water from pond water will dictate how long it will take to complete repairs and restore secondary containment.

As noted in the August 16, 2012 memo, the process of detection by inspection and completion of liner repairs typically takes 4 to 6 weeks. During that 4 to 6 week period the pond contents are not being released to the environment, so that human health and the environment remain protected.

What was not clear in the August 16, 2012 memo is that it typically takes another two months to wash the underdrain. Thus, daily inspections could, at best, decrease the time it takes to restore secondary containment by 6 days out of 84 days (assuming 4 weeks to repair and 2 months to wash the

underdrain). The daily inspections themselves do not directly affect protection of human health and the environment, as it is never compromised. The daily inspections are very time consuming. Cameco utilizes a buddy system and as a result, each inspection requires five man hours. In addition, the inspections are very dangerous in the winter when ice and snow abounds on the slippery liner surface.

In summary daily inspections:

- Does not improve protection of human health and the environment
- At best, decreases the time until secondary containment is restored by 7%
- Substantially increases the risk to workers performing winter inspections
- Increases the required effort from 5 to 35 man hours each week.

For the above reasons, Cameco requests continuation of the weekly inspection interval.